

ITGS Information - Student Guide

OVERVIEW:

Information Technology in a Global Society (ITGS) course, students will study and evaluate the impact of information technology on individuals and the society. In ITGS, Information Technology (IT) is defined as the acquisition, processing, storage, manipulation and dissemination of digital information by computer or any form of electronic communications.

Group 3: Individual and Society

This subject provides for the development of a critical appreciation of:

- Human experience and behavior
- The varieties of physical, economic and social environments that people inhabit
- The history of social and cultural institutions.

The subject is designed to foster in students the capacity to identify, to analyze critically and to evaluate theories, concepts and arguments relating to the nature and activities of individuals and societies.

Course Objectives:

- Study and evaluate the impact of IT on individual and the society.
- Explore the advantages and disadvantages of the use of digitized information in the local and international levels.
- Provide a frame work for students to make informed judgment and decision towards IT in a social context.
- Share methods of critical investigation and analysis with other social sciences and will also consider ethical questions found in the study of Philosophy.
- Encourage students to raise important questions about how IT shape our society today.
- Offer a systematic study of the social and ethical issues presented in the syllabus and other issues that might fall outside the scope of other single discipline.
- Recognize that people can hold diverse opinions about the impact of information technology on individuals and societies.

Expectations

1. Students should be at a computer logged in ready to begin the lesson. Students are expected to be working on class assignments during class. **Sending or checking email or browsing the web is prohibited unless permission is given by the teacher.**
2. Any late assignments will **only be given half credit (half their value)**. There will be no extra credit given in this course.
3. Students will **not be allowed out of class for any reason**. This includes visiting the office unless requested by administration.
4. On the third tardy, students will be referred for a detention. Warnings will be given for the first two. This includes tardy to school when this period meets first in the morning.
5. Students who have difficulties with an assignment should seek extra help, either before school, or at lunch time. Arrangements can also be made to meet after school. Students should keep track of all their marks so that they can calculate their own mark at any time.
6. When a student is absent, they are responsible for borrowing notes from the class wiki (<http://bifsitgs.wikispaces.com/>) other students and catching up on missed work. The teacher will keep a copy of any missed handouts.
7. **Students who are caught cheating will be referred to the office and receive a mark of zero for that homework, quiz, or test.**
8. English is to be spoken at all times in the classroom. That includes when you are discussing with your peers.

Credits awarded:

- One Credit per year for a two year course

Assessment

Assessment for this course is broken into two parts:

<ul style="list-style-type: none">• <u>BIFS Assessment 100%</u><ul style="list-style-type: none">✓ Assignment and Activities = 20%✓ Recitation = 10%✓ Quizzes = 30%✓ Exams and Portfolio(HL)/Project(SL) = 40%	<ul style="list-style-type: none">• <u>International Baccalaureate Assessment</u><p>External Assessment - Consists of 3 examination papers:</p><ul style="list-style-type: none">✓ Paper 1 - consists of 4 short answer questions = (20% - HL, 25% - SL)✓ Paper 2 - students have to answer 3 out of 4 questions (HL) or 3 from 6 (SL), which will be directly related to the impact of IT on society = (35% - HL, 45% - SL)✓ Paper 3 - consists of one long question related to a case study = (25% - HL only)<p>Internal Assessment</p><ul style="list-style-type: none">✓ A portfolio consisting of 3 pieces of written work each piece analyzing the social and ethical issues of a particular news article relating to an IT system with one piece extended by students interviewing stakeholders and commenting on their point of view = (20% - HL only)✓ A project consisting of three parts (product, report and log book) which will produce a solution to a problem, with a written report on how it was produced and a log book to chronologically document the steps taken= (30% - SL only)
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Unit Sequence

YEAR 1 - Term 1

Socials issues

1. Reliability of Software Designs
2. Integrity of Data
3. Security of Data, Software, Machines and Networks

Socials issues above will be studied and will be focused on following areas:

- ✓ Business
- ✓ Health
- ✓ Politics and Government

IT system in a social context

- ✓ Word processing
- ✓ Desktop Publishing
- ✓ Personal and Public Communications

Year 1 – Term2

Socials issues

1. Authenticity
2. Intellectual Property
3. Revision for past Social Issues

Socials issues above will be studied and will be focused on following areas:

- ✓ Business
- ✓ Health
- ✓ Science and Environment
- ✓ Education

IT system in a social context

- ✓ Spreadsheets
- ✓ Databases
- ✓ Images and Sound

Year 1 - Term 3

Socials issues

1. Equality of Access
2. Control
3. Security

Socials issues above will be studied and will be focused on following areas:

- ✓ Politics and Government
- ✓ Education
- ✓ Arts Entertainment and Leisure

IT system in a social context

- ✓ Network
- ✓ The Internet
- ✓ Images and sounds
- ✓ Electronic contents

YEAR 2 -Term 1

Socials issues

1. Globalization and Cultural Diversity
2. Policies and Standards
3. People and Machines

Socials issues above will be studied and will be focused on following areas:

- ✓ Politics and Government
- ✓ Education
- ✓ Business
- ✓ Health

IT system in a social context

- ✓ Robotics
- ✓ Artificial Intelligence
- ✓ Modeling and Simulations
- ✓ Online Maps and GPS
 - Images and Sound

YEAR 2 -Term 2

1. Article evaluations (Printed and online)
2. Film evaluations
3. Exam Revisions

SKILLS CONTENT for all the units:

- Understand and critically examine the global impacts of IT developments
- Demonstrate a knowledge and understanding of the social and ethical implications of IT systems and developments at the local, global and national level
- Analyze and evaluate the social and ethical implications of IT developments
- Analyze and evaluate relevant examples of the global impact of IT in a portfolio of individually researched studies
- Express ideas clearly and coherently with supporting arguments and examples
- Design and apply IT solutions to a problem set in a social context through a project
- Demonstrate an ability to synthesize and reflect on ideas
- Demonstrate an ability to project the global impacts of IT developments
- Analyze, research and evaluate relevant materials and examples including 'real-life' global and local interactions

Resources:

1. [AI on the Web](#)
2. [AI Depot](#)
3. [Artificial Intelligence](#)
4. [BBC Click Online](#)
5. [BBC TV Technology Section](#)
6. [BBC World Web Site](#)
7. [Computer Confluence Site](#)
8. [Computer Confluence Instructor Notes](#)
9. [Computer Confluence Self Assessment Quizzes](#)
10. [Computer Ethics](#)
11. [Computoreedge](#) - computer magazine that covers a specific IT area in each issue
12. [Country Studies](#)
13. [Daily Tech News](#)
14. [Expert Systems](#)
15. [Find Articles.com](#) - Free article search website.
16. [Fuzzy Expert Systems](#)
17. [How Stuff Works](#)
18. [IEEE Spectrum Magazine](#)
19. [Kinesis](#) - Manufacturer of ergonomic keyboards & offer innovative input accessories.
20. [Magazine Directory](#)
21. [MIT Technology Review](#)
22. [MSN Tech and Gadgets](#)
23. [Naked in Cyberspace](#)
24. [New York Times Technology Section](#) - online version of the newspaper technology section
25. [PC World](#)
26. [PEW Internet](#) - trends, research and other information on Internet use.
27. [Red Herring](#) - Online technology in business magazine
28. [Reference Desk](#)
29. [Search Engine Watch](#)

30. [Slashdot.org](#)
31. [Slate Citation Machine](#) - Web tool designed to produce reference citations.
32. [Spectrum Magazine Feature Articles Archive](#)
33. [Technology Review](#)
34. [The Atlantic Magazine](#)
35. [Time Magazine](#)
36. [The Guardian Newspaper Technology Section](#)
37. [The Information Technology Industry Council \(ITI\)](#)
38. [Webopedia](#) - online dictionary and search engine for computer and Internet technology definitions.
39. [World Facts](#)
40. [Wired Magazine](#) - Magazine that explores new trends in technology
41. [Yahoo Computers](#)

Abbreviation

AI	Artificial intelligence
ASCII	American Standard Code for Information Exchange
ATM	Automated teller machine
CAD	Computer-aided design
CAI	Computer-aided instruction
CAL	Computer-aided learning
CD	Compact disk
CD-ROM	Compact disk read-only memory
dpi	Dots per inch
DTP	Desktop publishing
DVD	Digital versatile disk
EDI	Electronic data Interchange
EFT	Electronic funds transfer

FTP	File transfer protocol
GB	Gigabyte
GIF	Graphic Interchange Format
GUI	Graphical user design
HTML	Hypertext Markup Language
HTTP	Hypertext transfer protocol
IP	Internet protocol
JPEG	Joint Photographic Expert Group
KB	Kilobyte
LAN	Local area network
MB	Megabyte
MHz	Megahertz
MIDI	Musical instrument digital interface
MP3	MPEG audio layer 3
OCR	Optical character recognition
OMR	Optical mark reader
PDA	Personal digital assistant
PDF	Portable document format
RAM	Random access memory
ROM	Read only memory
RTF	Rich text format
SSL	Secure socket layer

TB	Terabyte
TCP	Transmission control protocol
UPS	Uninterruptible power supply
URL	Uniform resource locator
VPN	Virtual private network
VR	Virtual reality
WAN	Wide area network
WWW	World Wide Web

TERMS

ITGS Glossary of Command Terms

Candidates should be familiar with the following key terms and phrases used in examination questions and assessment criteria.

account for
Asks candidates to explain a particular happening or outcome. Candidates are expected to present a reasoned case for the existence of something.
analyze
Asks candidates to respond with a closely argued and detailed examination of the perspective or a development. A clearly written analysis will indicate the relevant interrelationships between key variables, any relevant assumptions involved and also include a critical view of the significance of the account as presented. If this key is augmented by "the extent to which" then the candidate should be clear that judgment is also sought.
Assess
Asks candidates to measure and judge the merits and quality of an argument or concept. Candidates must clearly identify and explain the evidence for the assessment they make.
calculate
Asks the candidate to give a precise answer.
compare / contrast
Asks candidates to describe two situations and present the and contrast similarities and differences between them. On its own, a description of the two situations does not meet the requirements of this key word.
construct
Asks candidates to present a variety of information in a diagrammatic or tabular form.

define
Asks candidates to give a clear and precise account of a given word or term.
describe
Asks candidates to give a portrayal of a given situation. It is a neutral request to present a detailed picture of a given situation, event, pattern, process or outcome, although it may be followed by a further opportunity for discussion and analysis.
discuss / consider
Asks candidates to consider a statement or to offer a considered review or balanced discussion of a particular topic. If the question is presented in the form of a quotation, the specific purpose is to stimulate a discussion on each of its parts. The question is asking for the candidate's opinions; these should be presented clearly and supported with as much empirical evidence and sound argument as possible.
distinguish
Asks candidates to demonstrate a clear understanding of similar terms.
evaluate
Asks candidates to make an appraisal of the argument or concept under investigation of discussion. Candidates should weigh the nature of the evidence available, and identify and discuss the convincing aspects of the argument, as well as its limitations.
examine
Asks candidates to investigate an argument or concept and present their own analysis. Candidates should approach the question in a critical and detailed way which uncovers the assumptions and interrelationships of the issue.
explain
Asks candidates to describe clearly, make intelligible and give reasons for a concept, process, relationship or development.
identify
Asks candidates to recognize one or more component parts or processes.
outline
Asks candidates to write a brief summary of the major aspects of the issue, principle, approach or argument stated in the question.
to what extent?
Asks candidates to evaluate the success or otherwise of one argument or concept over another. Candidates should present a conclusion, supported by argument